

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following remarks is respectfully requested.

Claims 1-6 and 14 are active in this application, Claim 1 having been amended and Claim 14 added by the present amendment, and Claims 7-13 having been withdrawn from consideration as directed to a non-elected invention..

In the outstanding Office Action Claims 1-3 were rejected under 35 USC §102(a or e) as being anticipated by Asao et al (U.S. Patent 6,590,244), Claims 4-5 were rejected under 35 USC §103(a) as being unpatentable over Asao et al in view of Pan et al (U.S. Patent 6,548,849), and Claim 6 was rejected under 35 USC §103(a) as being unpatentable over Asao et al in view of Scheuerlein et al (IEEE International Solid State Circuits Conference).

Briefly recapitulating, amended Claim 1 is directed to an MRAM (Magnetic Random Access Memory) using an MTJ (Magnetic Tunnel Junction) structure as a memory element device. The claimed magnetic memory device is configured, in a case where the bit lines and the read word lines are arranged very close to one another to decrease the write current, to utilize a magnetic layer (magnetic material) used for forming TMR (Tunneling Magneto Resistive) element devices so as to suppress generation of inductance components due to the bit lines and the read word lines arranged close to each other.

More particularly, referring to the corresponding disclosure in the specification, an exemplary embodiment of the present invention is configured such that MTJ film 27b composed of fixed magnetic layer 116₁ is provided on wiring line 20c in a fourth level in a core peripheral circuit, to avoid electrical connection of wiring line 20c in the fourth level and wiring line 21c in a fifth level (See FIGS. 24, 40 and 41). With this structure, it is possible to avoid the effect of the inductance due to wiring line 19f in a third level and wiring line 21c in the fifth level arranged close to each other in the core peripheral circuit. That is, even in a

case where bit line 21a and write word lines 19b and 19d are arranged close to one another to decrease the write current, the interference due to electromotive force between wiring lines 19f and 21c, arranged close to each other, can be easily reduced by MTJ film 27a.

Claim 1 has been presently amended consistent with the above described exemplary embodiment to recite --a magnetic layer provided between the third wiring line and the fourth wiring line and connected to only one of the third wiring line and the fourth wiring line.-- No new matter has been added.

The outstanding rejection of Claims 1-3 seems to be based on the finding that Asao et al teach "at least one magnetic layer forming the magnetoresistive effect element device 30 and provided between the third wiring line and the fourth wiring line." However, the Asao et al. device is configured such that upper and lower wiring lines 20b and 19b are connected to each other via resistive element 30 (TMR element 25b). Asao et al. do not disclose the structure in which MTJ film 27b, composed only of fixed magnetic layer 116₁, is provided so as not to be connected to one of wiring line 20c in the fourth level and wiring line 21c in the fifth level, as in the present invention.

Amended Claim 1 is directed to a structure, for example, in which MTJ film 27b, composed of fixed magnetic layer 116₁ is provided between wiring line 20c in the fourth level and wiring line 21c in the fifth level so as not to be connected to one of wiring lines 20c and 21c. This structure is not disclosed in Pan et al. (USP 6,548,849) or Scheuerlein et al., (IEEE International Solid-State Circuits Conference), as well. In view of this distinction, it is respectfully submitted that the outstanding rejection of Claim 1 has been overcome and that Claim 1 and dependent Claims 2-6 and 14 dependent therefore, patentably define over the cited prior art.

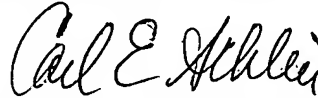
Consequently, view of the present amendment and in light of the above comments, no further issues are believed to be outstanding, and the present application is believed to be

Application No. 10/736,831
Reply to Office Action of August 8, 2005

in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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